

EXHIBIT I

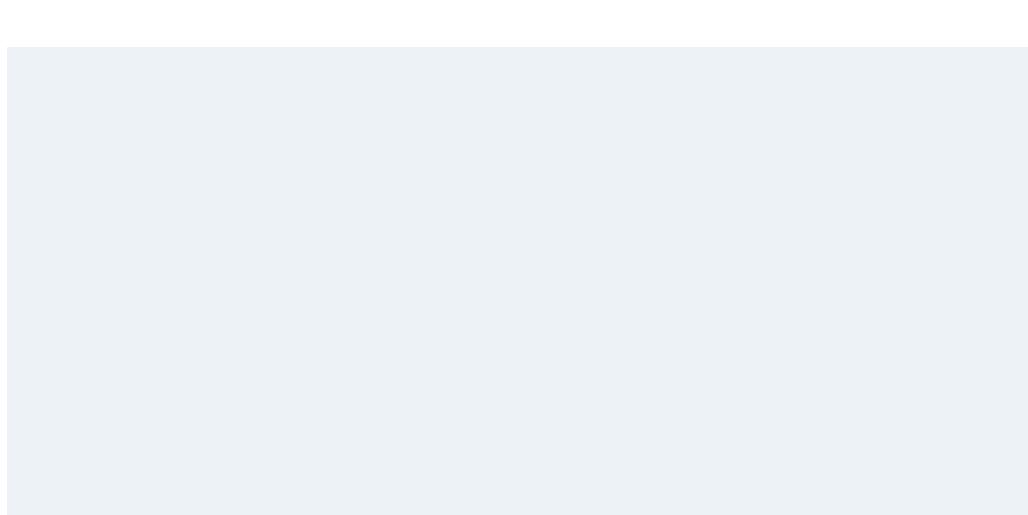
[Home](#)[All Activity](#)[Activity Feeds](#)[Links & Resources](#)[Zerbox](#)[Clubs](#)

Search...

[Leaderboard](#)[Staff](#)[Online Users](#)

Home > XRP > Technical Discussion > [REDACTED]

[REDACTED] All Activity



the network is down

?



By yxxyun,

November 14, 2018 in

Technical Discussion

[Share](#)

Followers

5

« PREV 1 3 4 5 NEXT »

Page 2 of 5 ▾

velmet



Member

120

1 year later...

FOOD



Gold Member



3.8k

FOOD



Gold Member



3.8k

Posted November 14, 2018

If you look at individual ledgers during roughly an hour this occurred it seems that ledgers closed every 3.5 seconds as usual but there were no transactions in at least the ledgers I have looked during this period. Perhaps simply this is due to Ripple public S1 cluster malfunctioning (since most services/people still use it instead of their own node or alternative public nodes)?

Posted October 13, 2020

Anybody been following Galgitron on twitter... he seems to have not only proven the opposing party wrong, but demonstrated that they are liars... anybody?

yxxyun 1

Posted October 13, 2020

For reference, I discovered this thread because it seemed to be pointed to as definitive proof that the ledger halted.... here is what

@galgitron posted on twitter:

SEC v. Ripple et al.

M. Vukolić Dep.
12/17/21

Exhibit MV-16

Replies Created Last Reply

68 3 yr 1 yr ▾

TOP POSTERS IN THIS TOPIC

nikb 17 posts tulo 5 posts FOOD 5 posts

 B
BillyOckham 8 posts

POPULAR DAYS

Oct 13 2020 Nov 14 2018 Oct 15 2020 Oct 14 2020
23 posts 16 posts 12 posts 8 posts

POPULAR POSTS

nikb October 13, 2020

The data that Galgitron is showing would not represent the issue: he's post-processing ledgers based on the close_time field. Here are the facts: sometime around midnight (UTC time!) on 2018-11-1

nikb October 13, 2020

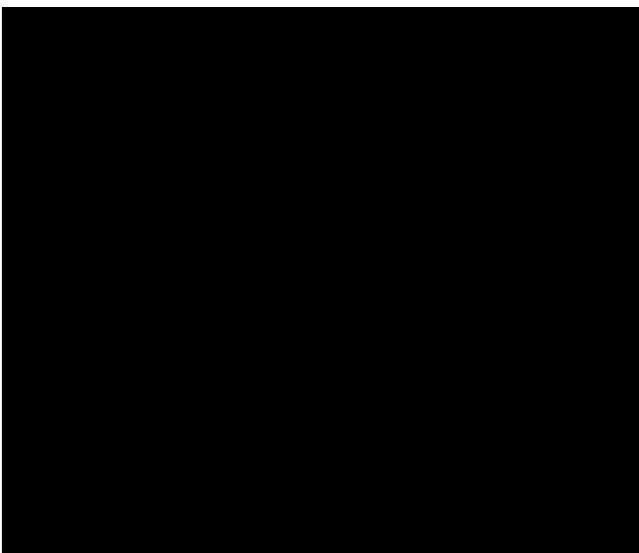
Nothing casts more doubt that uncertainty and secrets. We all benefit when issues are discussed, analyzed and understood because the net result is a better, stronger network.

nikb October 14, 2020

Good question. I wish I had a better answer for you, but it boils down to this: The company was using JIRA for everything else, and management wanted to be able to monitor the work we were doing

Popular Topics

- Adopt a Node Initiative 15
By Julian_Williams Started Friday at 01:34 PM
- Charting the course of XRP 20,207
By Guest Started August 14, 2019
- Russia deeply into testing 4
By Julian_Williams Started 9 hours ago
- Ripple/ODL for cross border payments 16
By Julian_Williams Started Thursday at 06:01 AM
- Petition to fire Gary Gensler 5
By thecandyman cane Started Thursday at 06:01 AM
- Xpool on BSC 9
By peanut56 Started Friday at 01:07 AM
- Airdrops for the XRP holders (update) 9
By Stedas Started November 28



Started February 23

[Epic Pennant on BTC Chart](#)

11,647

 By Eric123

Started January 24, 2019

Forum Statistics**Total Topics**

32.6k

Total Posts

887.6k

Seems he proved that the ledger never halted even though, from what I understand, an employee of Ripple stated that it did....

anybody watching this on Twitter? It's fascinating! Also, I have to admit, I never followed Galgitron very closely, but that guy is a genius!

Anybody agree, disagree, or just want to say something?

Also, I can't get any work done because of this.....

Posted October 13, 2020

...

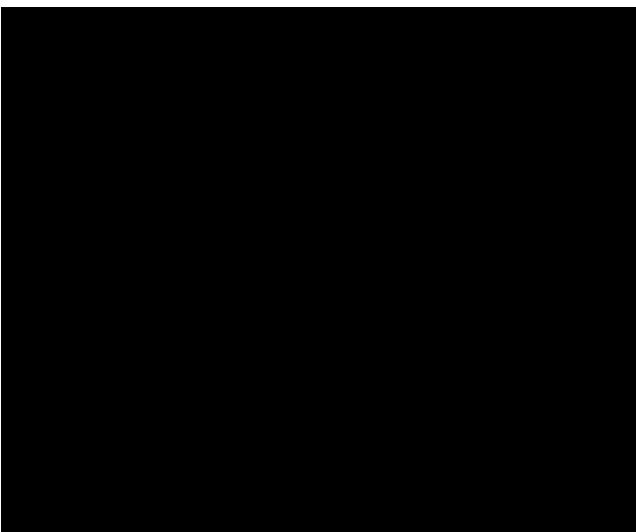
Okay....so the plot thickens... here is the response backing up the claim that the ledger halted:

FOOD

Gold Member



3.8k



In case anybody missed it, the "sailboat" is also "Galgitron".... okay so I am trying to think this through objectively and the one thing that sticks out is that the party stating/hinting at/misleading people to believe the ledger was halted was openly encouraging people to "figure it out on their own, as all the information, including dates is readily available".... but it doesn't seem that even the savviest of technical prowess would be able to spot the "halt"...IMO

I'll stop.

VanHasen  1

nikb



Ripple Employee

1.1k

Posted October 13, 2020

Popular Post 

The data that Galgitron is showing would not represent the issue: he's post-processing ledgers based on the **close_time** field.

Here are the facts: sometime around midnight (UTC time!) on 2018-11-14, the validator operated by **data443** stopped issuing validations. This persisted for almost 30 minutes and was probably caused by a network or other outage as opposed to routine system maintenance.

Shortly after, the **rabbitkick.club** validator operated by [@ScottBranson](#) desynced (that's generally not a problem, the Internet isn't a perfect network) and sporadically issued several validations which propagated poorly and which other validators were generally unable to acquire from the network. This lasted for almost 2 hours.

During this time, other validators continued to issue validations, but due to a bug, the "healthy" validators repeatedly switched working branches for consensus and only issued partial validations, which was what they were supposed to do per the protocol design as the XRP Ledger values safety. Even though a quorum of validators were periodically in agreement on the proper ledger, the partial status on the validations prevented them from fully validating.

I personally restarted several of Ripple's validators, and other validator operators restarted theirs. The restart effectively reset the LedgerTrie state (it's ephemeral by design), which, in turn, stopped those validators from switching working branches post-restart, resolving the issue as the restarted validators began issuing full, instead of partial validations for the ledgers during this incident. This, by the way, is why the timeline, as represented by the **close_time** field appears unaffected.

Post-incident, the team at Ripple invested a significant amount of time troubleshooting the issue and proposed several improvements, including a [commit](#) that improved the calculation of the preferred ledger branch, added additional diagnostic checks to help making troubleshooting easier, and introduced several unit tests to try and exercise the LedgerTrie code more deeply.

hallwaymonitor, karstnDE, QWE and 13 others  4  12

Posted October 13, 2020



Thanks [@nikb](#)

but to be clear, there really would not be a way for an ordinary community member like myself (or the majority of xrp twitter community) to locate and confirm the halt despite being given the date and time it might have happened, correct?

I ask this because it appeared to me that the original intention (of the hints and questions on twitter) was for the "xrp community" to do the due diligence and figure this out on their own... almost seemed that it was a surprise that nobody already did it as it was sooooo easy (admittedly my own interpretation of what I've ingested on twitter) to figure out.... BUT, there would be no way in hell anybody would have been able to figure that out.... Or (and wouldn't surprise me) I totally misread/misinterpreted a lot of stuff....

FOOD



Gold Member



3.8k

Posted October 13, 2020



Thanks [@nikb](#)

but to be clear, there really would not be a way for an ordinary community member like myself (or the majority of xrp twitter community) to locate and confirm the halt despite being given the date and time it might have happened, correct?

I ask this because it appeared to me that the original intention (of the hints and questions on twitter) was for the "xrp community" to do the due diligence and figure this out on their own... almost seemed that it was a surprise that nobody already did it as it was sooooo easy (admittedly my own interpretation of what I've ingested on twitter) to figure out.... BUT, there would be no way in hell anybody would have been able to figure that out.... Or (and wouldn't surprise me) I totally misread/misinterpreted a lot of stuff....

maybe at the beginning of this thread?

Thanks again for the quick and detailed information!



Ripple Employee

1.1k

Posted October 13, 2020

...

Just now, EcneitapLatnem said:

Thanks @nikb

but to be clear, there really would not be a way for an ordinary community member like myself (or the majority of xrp twitter community) to locate and confirm the halt despite being given the date and time it might have happened, correct?

I ask this because it appeared to me that the original intention (of the hints and questions on twitter) was for the "xrp community" to do the due diligence and figure this out on their own... almost seemed that it was a surprise that nobody already did it as it was sooooo easy (admittedly my own interpretation of what I've ingested on twitter) to figure out.... BUT, there would be no way in hell anybody would have been able to figure that out.... Or (and wouldn't surprise me) I totally misread/misinterpreted a lot of stuff....

Seems a lot of confusion could have been avoided a long time ago if what you had written above was posted days/weeks/months ago.... maybe at the beginning of this thread?

Thanks again for the quick and detailed information!

If anyone was monitoring the validation stream they could have detected it in real-time.

Galgitron dismisses the issue and traduces the good name of others by relying on incorrect information and a flawed understanding of the protocol and the incident.

By way of analogy, this would be like going through a diary and claiming that just because a page is marked as "January 29, 2020" the page must have, necessarily, been written on January 29, 2020 as opposed to a week later, and the timestamp only serves to indicate that the events being described took place at that time.

RecentChange, WrathofKahneman and QWE  3

...

Soup



Member

18

Posted October 13, 2020

...

39 minutes ago, nikb said:

The data that Galgitron is showing would not represent the issue: he's post-processing ledgers based on the **close_time** field.

Here are the facts: sometime around midnight (UTC time!) on 2018-11-14, the validator operated by **data443** stopped issuing validations. This persisted for almost 30 minutes and was probably caused by a network or other outage as opposed to routine system maintenance.

Shortly after, the **rabbitkick.club** validator operated by [@ScottBranson](#) desynced (that's generally not a problem, the Internet isn't a perfect network) and sporadically issued several validations which propagated poorly and which other validators were generally unable to acquire from the network. This lasted for almost 2 hours.

During this time, other validators continued to issue validations, but

which was what they were supposed to do per the protocol design as the XRP Ledger values safety. Even though a quorum of validators were periodically in agreement on the proper ledger, the partial status on the validations prevented them from fully validating.

I personally restarted several of Ripple's validators, and other validator operators restarted theirs. The restart effectively reset the LedgerTrie state (it's ephemeral by design), which, in turn, stopped those validators from switching working branches post-restart, resolving the issue as the restarted validators began issuing full, instead of partial validations for the ledgers during this incident. This, by the way, is why the timeline, as represented by the close_time field appears unaffected.

Post-incident, the team at Ripple invested a significant amount of time troubleshooting the issue and proposed several improvements, including a [commit](#) that improved the calculation of the preferred ledger branch, added additional diagnostic checks to help making troubleshooting easier, and introduced several unit tests to try and exercise the LedgerTrie code more deeply.

No company policy about airing dirty laundry?

Posted October 13, 2020 (edited)

...

2 hours ago, Soup said:

No company policy about airing dirty laundry?

Dirty laundry? What? 😐



Ripple Employee

1.1k

I answered a question people had about an incident that occurred on the open, permissionless and publicly accessible XRP Ledger.

I don't see this as "airing dirty laundry" nor do I feel it's a **bad** idea for incidents to be discussed and evaluated so lessons can be learned.

Edited October 13, 2020 by nikb

Wrote "good idea" instead of "bad idea" accidentally reversing my intent.

Ryyy20, QWE, LetHerRip and 2 others

5

...

...



Member

18

Posted October 13, 2020

Just now, nikb said:

Dirty laundry? What? 😐

I answered a question people had about an incident that occurred on the open, permissionless and publicly accessible XRP Ledger.

I don't see this as "airing dirty laundry" nor do I feel it's a good idea for incidents to be discussed and evaluated so lessons can be learned.

Your casting doubt on the health of the company's cash cow. I doubt Ripple loves the clarification.

King34Maine and PlanK

2

...

...



Ripple Employee

1.1k

Posted October 13, 2020

Just now, Soup said:

Your casting doubt on the health of the company's cash cow. I doubt Ripple loves the clarification.

I am not casting doubt on anything. I'm explaining an incident which occurred on a public blockchain.

You may prefer to stick your head in the sand, but I don't and I doubt



...

Soup

Member



18

Posted October 13, 2020

1 minute ago, nikb said:

I am not casting doubt on anything. I'm explaining an incident which occurred on a public blockchain.

You may prefer to stick your head in the sand, but I don't and I doubt that Ripple does.

Well, I bet the business side of the house prefers the issue fixed and forgotten and not used as a means to cast doubt on the network and its future prospects.

xrpzzzzzzz



1

...

nikb

Ripple Employee



1.1k

Posted October 13, 2020

Popular Post

...

3 minutes ago, Soup said:

Well, I bet the business side of the house prefers the issue fixed and forgotten and not used as a means to cast doubt on the network and its future prospects.

Nothing casts more doubt than uncertainty and secrets. We all benefit when issues are discussed, analyzed and understood because the net result is a better, stronger network.

XRPwinning, Kakoya, QWE and 11 others



10



4

...

FOOD

Gold Member



3.8k

Soup

Member



18

Posted October 13, 2020

2 minutes ago, nikb said:

Nothing casts more doubt than uncertainty and secrets. We all benefit when issues are discussed, analyzed and understood because the net result is a better, stronger network.

Amen!

BillyOckham and Gilligan



2

...

Posted October 13, 2020

4 minutes ago, nikb said:

Nothing casts more doubt than uncertainty and secrets. We all benefit when issues are discussed, analyzed and understood because the net result is a better, stronger network.

That sounds great, but no progress was made by the substantiation. It only emboldens FUD, but what do I know??? I'm only HODLING and remaining poor.

< PREV 1 3 4 5 NEXT > Page 2 of 5 ▾

Create an account or sign in to comment

You need to be a member in order to leave a comment

Create an account**Sign in**

Sign up for a new account in our community. It's
easy!

Already have an account? Sign in here.

[Sign In Now](#)[Register a new account](#)

< Go to topic listing

Home > XRP > Technical Discussion > [REDACTED]

All Activity

Theme ▾ Privacy Policy Contact

I accept

We have placed cookies on your device to help make this website better. You can adjust your cookie settings, otherwise we'll assume you're okay to continue.

Powered by Invision Community